

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. **(Currently Amended)** In drive line system for agricultural equipment **powered by a power takeoff/driveline (PTO) of a vehicle**, said system comprising:

A.——A **a** power input shaft **adapted to couple to the PTO of the vehicle**;

~~B.~~——A **a** power output shaft **operably** coupled to said power input shaft **so as to form a right angle therebetween**;

C.——~~Agricultural~~ **agricultural** machinery coupled to said power output shaft and driven by said power output shaft;

D.——A **right angle** gearbox and clutch system disposed between said power input shaft and power output shaft, said **~~eluteh~~** system having,

E.——A **a right angle** gear mechanism;

F.——A **a** clutch mechanism coupled to said gear mechanism;

G.——An **an** enclosure enclosing said clutch mechanism; and

H.——A **a** lubricant disposed within said clutch mechanism.

2. **(Original)** The system of claim 1, wherein said lubricant substantially fills said enclosure.

3. **(Original)** The system of claim 1, wherein said enclosure is sealed.

4. **(Currently Amended)** The system of claim 1, further comprising **~~an~~** **a second** enclosure around the gear mechanism.

5. **(Original)** The system of claim 1, wherein said enclosure encloses the gear mechanism and the clutch mechanism.

6. **(Currently Amended)** The system of claim 1, wherein said gear mechanism comprises **~~an~~** **a** gear input shaft, a gear output shaft and gears coupling said gear input shaft to said gear output shaft.

7. (Currently Amended) The system of claim 6, wherein said clutch mechanism comprises a clutch output shaft axially aligned with said gear output shaft, a drive plate disposed on said gear output shaft, a pressure plate disposed on said clutch output shaft adjacent said drive plate, and a biasing element urging said drive plate and said pressure plate into contact with one another.

8. (Currently Amended) The system of claim 1 ~~[[7]]~~, ~~wherein said gear input shaft and said gear output shaft are axially offset from one another~~ wherein said power input shaft is coupled to and powered by said tractor and wherein said gearbox and clutch system are external to said vehicle and external to said agricultural equipment.

9. (Currently Amended) A combined right angle gearbox and clutch system for the drive line of agricultural equipment powered by a power takeoff/driveline (PTO) of a tractor, said right angle gearbox and clutch system comprising:

A. — A a gear mechanism having a gear input shaft with a first end adapted to couple to the PTO and a right angle gear set at a second end;

B. — A a clutch mechanism coupled to said gear mechanism wherein said clutch mechanism comprises a clutch output shaft that is operably connected to a clutch input shaft, said clutch input shaft coupled to said right angle gear set, a drive plate disposed on said clutch input shaft, a pressure plate disposed on said clutch output shaft adjacent said drive plate, and a biasing element urging said drive plate and said pressure plate into contact with one another;

C. — A a clutch enclosure enclosing said clutch mechanism; and

D. — A a lubricant disposed within said enclosure;

wherein said gear input shaft is disposed to be coupled to and powered by said PTO and said clutch output shaft is disposed to be coupled to said agricultural equipment and wherein said right angle gearbox and clutch system is situated external to said tractor and external to said agricultural equipment.

10. (Original) The system of claim 9, wherein said lubricant substantially fills said clutch enclosure.

11. **(Original)** The system of claim 9, wherein said clutch enclosure is sealed.
12. **(Currently Amended)** The system of claim 9, further comprising ~~an~~ a gear enclosure around the gear mechanism.
13. **(Cancelled)**
14. **(Original)** The system of claim 9, wherein said gear mechanism comprises a gear input shaft, a gear output shaft and gears coupling said gear input shaft to said gear output shaft.
15. **(Cancelled)**
16. **(Original)** The system of claim 9, wherein said lubricant is oil.
17. **(Original)** The system of claim 9 wherein said clutch enclosure encloses the gear mechanism.
18. **(Original)** The system of claim 17, wherein said clutch enclosure defines separate compartments around the gear mechanism and the clutch mechanism.
19. **(Original)** The system of claim 18 wherein said enclosure compartments are sealed from one another.
20. **(Original)** The system of claim 9 wherein said lubricant surrounds said clutch mechanism.
21. **(Original)** The system of claim 9 wherein said lubricant surrounds said clutch mechanism and said gear mechanism.
22. **(Original)** The system of claim 17, wherein said lubricant surrounds said clutch mechanism.
23. **(Original)** The system of claim 19, wherein a lubricant is disposed in each compartment.

24. (Original) The system of claim 18, wherein said compartments are in fluid communication with one another.

25. (Cancelled)

26. (Cancelled)

27. (Original) The system of claim 9, further comprising a gear enclosure enclosing said gear mechanism, wherein said clutch enclosure is attached to said gear enclosure.

28. (Currently Amended) A combined right angle gearbox and clutch system for the drive line of agricultural equipment powered by a power takeoff/driveline (PTO) of a tractor, said right angle gearbox and clutch system comprising:

A. — A a gearbox having a gearbox input shaft adapted to couple to the PTO and a gearbox output shaft disposed at a right angle to said gearbox input shaft;

B. — A a mechanical, non-electrical clutch coupled to said gearbox wherein said non-electrical clutch comprises a clutch output shaft operably connected to said gearbox output shaft, a clutch input shaft so as to form said right angle gearbox, a drive plate disposed on said gearbox output shaft, a pressure plate disposed on said clutch output shaft adjacent said drive plate, and a biasing element urging said drive plate and said pressure plate into contact with one another,

C. — A a clutch enclosure enclosing said mechanical clutch; and

D. — A a machinery oil bath disposed within said enclosure and surrounding said mechanical clutch,

~~E. — Said mechanical clutch comprising a clutch input shaft aligned with a clutch output shaft, a drive plate disposed on said clutch input shaft, a pressure plate disposed on said clutch output shaft adjacent said drive plate, and a biasing element urging said drive plate and said pressure plate into contact with one another, wherein said oil bath is in contact with drive plate, pressure plate and biasing element;~~

wherein said gearbox input shaft is disposed to be coupled to and powered by said PTO and said clutch output shaft is disposed to be coupled to said agricultural

equipment and wherein said right angle gearbox and clutch system is situated external to said tractor and external to said agricultural equipment.